

Taxonomic notes on some East African birds. Part I — Non-passerines

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As a preliminary to the publication of a Revised list of the birds of East Africa (EANHS Ornithological Sub-Committee in prep.), and a *Field guide to the birds of Kenya* (Zimmerman, Turner & Pearson in prep.), it has become necessary to review fully the scientific nomenclature used by Britton (1980). Many publications which have appeared since 1980 have involved taxonomic revisions of many African bird groups. In making our recommendations we have tried to take all such published opinions into account. We have also relied on our own field observations in East Africa, together with the experience of colleagues here and elsewhere on the African continent.

We list below, giving brief background, all those cases where we recommend a change from Britton (1980). The English names used here are those we now prefer, and in some cases these differ from those in Britton. The names used by Britton are given on the right in square brackets.

Oceanitidae storm-petrels [Hydrobatidae]
We follow Condon (1975), Brooke & Sinclair (1978), Clancey (1980), and Harrison (1983) in recognizing the Oceanitidae.

***Sula capensis* Cape Gannet** [*Sula bassana* Gannet]
We agree with Clancey (1980), Brown *et al.* (1982), Harrison (1983), and Sibley & Monroe (1990) in recognizing *capensis* as specifically distinct from *bassana*.

***Necrosyrtes monachus* Hooded Vulture** [*Neophron monachus*]
Brown & Amadon (1968) reviewed evidence for placing this species in a monotypic genus. This course was followed by Voous (1973), Clancey (1980), Dowsett & Dowsett-Lemaire (1980), Brown *et al.* (1982), Amadon & Bull (1988) and Sibley & Monroe (1990). We too prefer to recognize the monotypic *Necrosyrtes*.

***Polyboroides typus* African Harrier-Hawk** [*Polyboroides radiatus* Harrier Hawk]
We agree with Snow (1978), Clancey (1980), Brown *et al.* (1982), Amadon & Bull (1988) and Sibley & Monroe (1990) in recognizing mainland African birds as *typus*. Madagascar birds (*radiatus*), considered by some to be specifically distinct, are probably best treated as conspecific with *typus* as suggested by Dowsett & Dowsett-Lemaire (1980).

***Buteo oreophilus* Mountain Buzzard** [*Buteo tachardus*]
James & Wattel (1983) argue that Brooke (1974) was in error in recognizing *tachardus*, and they strongly recommend that *oreophilus* should stand for this species. We agree that East African birds are best treated as nominate *oreophilus*, following Brown *et al.* (1982), Amadon & Bull (1988) and Sibley & Monroe (1990).

***Spizaetus africanus* Cassin's Hawk-Eagle** [*Hieraetus africanus*]
We follow Snow (1978), Brown *et al.* (1982), Amadon & Bull (1988) and Sibley & Monroe (1990) in placing this forest eagle in *Spizaetus*.

Hieraaetus ayresii Ayres' Hawk-Eagle [**Hieraaetus dubius** Ayres' Hawk Eagle]
Brooke & Vernon (1981) show convincingly that *dubius* was based on a specimen of *H. pennatus*, and urge everyone to revert to *ayresii*. This is now widely accepted by most recent authorities including Clancey (1980), Dowsett & Forbes-Watson (in press), Amadon & Bull (1988) and Sibley & Monroe (1990). We fully support this change.

Micronisus gabar Gabar Goshawk [**Melierax gabar**]
We follow Snow (1978), Clancey (1980) and Brown *et al.* (1982) who accept the evidence given by Smeenk & Smeenk-Enserink (1975) for placing this species in the monotypic genus *Micronisus*.

Pandioninae Osprey [**Pandionidae** Osprey]
We follow Brown *et al.* (1982), Amadon & Bull (1988) and Sibley & Monroe (1990) in recognizing the subfamily Pandioninae, within the Accipitridae.

Coturnix adansonii Blue Quail [**Coturnix chinensis**]
Although considered conspecific by Snow (1978) and Crowe (in Urban *et al.* 1986), we prefer to follow Mackworth-Praed & Grant (1952), Devilliers (1976), Clancey (1980) and Sibley & Monroe (1990) in keeping the African form *adansonii* distinct from the very different-looking Asian *chinensis*.

Guttera pucherani Crested Guinea-fowl [**Guttera pucherani** Kenya Crested Guinea-fowl]

Crowe (1978) regarded *G. pucherani* and *G. edouardi* as conspecific, based on intergradation in captivity and in the wild. We note that Clancey (1980), Urban *et al.* (1986) and Sibley & Monroe (1990) follow Crowe, and since both forms occur on the same ground in central Kenya where interbreeding may account for some racially indeterminate, possibly hybrid birds (Taylor & Taylor 1988), we fully support their view.

Bugeranus carunculatus Wattled Crane [**Grus carunculatus**]

Balearica pavonina Black Crowned Crane [**Balearica pavonina gibbericeps** Crowned Crane]

Balearica regulorum Grey Crowned Crane [**Balearica pavonina ceciliae** Crowned Crane]

Walkinshaw (1973) and The International Crane Foundation have revised the taxonomy and English names for all cranes, a revision recently used by Urban *et al.* (1986) and Urban (1988), and Sibley & Monroe (1990) and we propose to follow suit. The Wattled Crane is placed in a monotypic genus and the two crowned cranes are given specific status.

Amaurornis flavirostris Black Crake [**Limnocorax flavirostris**]

We follow Olson (1973), Snow (1978), Clancey (1980), Urban *et al.* (1986) and Sibley & Monroe (1990) in placing this species in *Amaurornis*.

Aenigmatolimnas marginalis Striped Crake [**Porzana marginalis**]

Olson (1973) proposed placing this crake in the monotypic genus *Aenigmatolimnas*. This was later followed by Snow (1978), Clancey (1980), Urban *et al.* (1986) and Sibley & Monroe (1990). We also note that additional supporting reasons for the move were given by Dowsett & Dowsett-Lemaire (1980). We support the use of *Aenigmatolimnas*.

Ardeotis arabs Arabian Bustard [**Otis arabs**]

Ardeotis kori Kori Bustard [**Otis kori**]

Collar, Goriup & Osborne (in Urban *et al.* 1986) point out that the genus *Ardeotis* is

distinct in structure and plumage from *Otis*, and place both Arabian and Kori Bustards in *Ardeotis*, as did Voous (1973), Clancey (1980) and Sibley & Monroe (1990). We fully support the change.

***Eupodotis cafra* White-bellied Bustard** [*Eupodotis senegalensis*]

We follow Goriup (Bustards of the world, in press) who, in determining that the form *erlangeri* is merely the juvenile plumage of *canicollis*, argues that *senegalensis* should be considered synonymous with the southern African form *cafra*. Thus the taxon in East Africa becomes *E. cafra canicollis*.

***Pluvialis fulva* Pacific Golden Plover** [*Pluvialis dominica* Lesser Golden Plover]

Connors (1983) pointed out that there was no evidence to show that this and *P. dominica* were conspecific where the two overlap in Alaska. Hayman *et al.* (1986) keep the two species separate, a move accepted by many, including ourselves.

***Phalaropus* spp. phalaropes** [Phalaropidae]

We follow Hayman *et al.* (1986), Urban *et al.* (1986) and Sibley & Monroe (1990) in placing phalaropes in the Scolopacidae and not as a separate family as in Britton (1980).

***Columba iriditorques* Western Bronze-naped Pigeon** [*Columba malherbii*]

We follow Goodwin (1967, and in Snow 1978) as well as Urban *et al.* (1986) and Sibley & Monroe (1990) in recognizing *iriditorques* for mainland western birds and *malherbii* for those from the Gulf of Guinea. We also note with interest the comments by Dowsett & Dowsett-Lemaire (1980) regarding close similarities in the voices of *iriditorques* and *delegorguei*, but until the voice of *malherbii* is studied we prefer to consider all three taxa as separate species.

***Treron calva* African Green Pigeon** [*Treron australis* Green Pigeon]

Goodwin (1967, and in Snow 1978) treated African mainland birds as *T. calva*, keeping separate the island forms on Pemba and Madagascar as *pembae* and *australis* respectively. This treatment of mainland birds was subsequently followed by Clancey (1980), Urban *et al.* (1986) and Sibley & Monroe (1990) and we fully support it.

The Pemba bird appears to be closely related to the birds on Madagascar and the Comoros, and for the time being we prefer to retain it as an endemic race of *australis* (*T. a. pembaensis*). Further field studies on Pemba are strongly recommended.

***Tauraco schalowi* Schalow's Turaco** [*Tauraco livingstonii* Livingstone's Turaco]

Snow (1978) treated the *T. persa* superspecies as consisting of five closely related species, as too did White (1965). Clancey (1980), however, placed *livingstonii* and *schalowi* in *corythaix*, while Fry *et al.* (1988) recognized only three species in this group. Meanwhile, Dowsett-Lemaire & Dowsett (1988), in discussing the vocalizations of the *T. persa* superspecies, convincingly proposed that *T. schalowi* be recognized as a distinct species, thus making a superspecies of six. Sibley & Monroe (1990) also recognize both *schalowi* and *livingstonii*, a change we fully support.

***Oxylophus jacobinus* Black and White Cuckoo** [*Clamator jacobinus*]

***Oxylophus levaillantii* Levaillant's Cuckoo** [*Clamator levaillantii*]

Irwin (in Fry *et al.* 1988) separated *Oxylophus* from *Clamator* for these two species on the grounds of their substantially different plumage and radically different wing shape. These two species also have all-black morphs, a condition which does not occur in *Clamator glandarius*. We support Irwin's views, as do Sibley & Monroe (1990).

Cuculus poliocephalus Asian Lesser Cuckoo [C. p. *poliocephalus* Lesser Cuckoo]
Cuculus rochii Madagascar Lesser Cuckoo [C. p. *rochii* Lesser Cuckoo]
 Dowsett & Dowsett-Lemaire (1980) recommended that *rochii* be considered a distinct species on the basis of its voice, which is quite different from *poliocephalus*. Subsequently, Fry *et al.* (1988) treated them as separate species, while Becking (1988) discussed in detail the taxonomic status of *rochii*, also deeming it a species separate from the Asian *poliocephalus*. We support these views.

Centropodidae coucals [Cuculidae, Centropinae]
 We follow Sibley & Monroe (1990) in recognizing coucals at the family level, and being sufficiently distinct from their previous position as a subfamily within the Cuculidae. All species within the genus *Centropus* are included in this new assemblage, while the Yellowbill *Ceuthmochares aereus* is placed in the subfamily Coccyzinae. Britton (1980) used the subfamily name Phoenicophaeinae to house this bird within the Cuculidae.

Bubo poensis Fraser's Eagle-Owl [Fraser's Eagle Owl]
Bubo vosseleri Usambara Eagle-Owl [*Bubo poensis vosseleri* Nduk Eagle Owl]
 Collar & Stuart (1985) treat *vosseleri* as a distinct species, endemic to the Usambara Mountains in northeastern Tanzania. White (1974) appears to be the only person to have heard both *poensis* and *vosseleri* in the wild, noting their calls "similar, but significantly different." In view of the vast distance separating *poensis* from *vosseleri*, and the long isolation of the latter in the Usambaras, we agree with Collar & Stuart and prefer to treat *vosseleri* as a distinct species.

Strix woodfordii African Wood Owl [Ciccaba woodfordii]
 Colston (in Snow 1978) placed this species in *Strix*, perhaps following the conclusion of Voous (1964) that *Ciccaba* was probably not recognizably distinct. Subsequently Clancey (1980), Fry *et al.* (1988) and Sibley & Monroe (1990) have all followed suit, a move we fully support.

Otus scops Eurasian Scops Owl [*Otus scops scops* and *turanicus* Scops Owl]
Otus senegalensis African Scops Owl [*Otus scops senegalensis*, *nivosus*, and *pulchellus* Scops Owl]
 Marshall (1978) and Chappuis (1978) both proposed that *senegalensis* be considered a separate species on the basis of vocal differences from *O. scops*, a view supported by Dowsett & Dowsett-Lemaire (1980) and Clancey (1980). Although Fry *et al.* (1988) preferred to retain *senegalensis* in *scops*, Sibley & Monroe (1990) have treated them as separate species, an arrangement we ourselves favour.

Caprimulgus pectoralis Fiery-necked Nightjar [*Caprimulgus pectoralis fervidus* Fiery-necked Nightjar]
Caprimulgus nigriscapularis Black-shouldered Nightjar [*Caprimulgus pectoralis nigriscapularis* Fiery-necked Nightjar]
 We follow Fry (1988) and Sibley & Monroe (1990) in separating *nigriscapularis* from *pectoralis* on the basis of some vocal differences. Habitat preference may also be a major factor as well: *nigriscapularis* prefers non-forested habitat in areas of much higher rainfall than favoured by *pectoralis*.

Caprimulgus poliocephalus Montane Nightjar [Abyssinian in Montane Nightjar]
Caprimulgus ruwenzorii Ruwenzori Nightjar [in Montane Nightjar]
Caprimulgus guttifer Usambara Nightjar [Usambara in Montane Nightjar]

Although treated as separate species by Mackworth-Praed & Grant (1952), Snow (1978) considered them conspecific, a view followed by Britton (1980). Later on, Chappuis (1981) separated *ruwenzorii* from *poliocephalus* because of its different call, a point further emphasized by Fry (1988). In addition, it has a totally different tail pattern from *poliocephalus*. While agreeing that *ruwenzorii* should be treated separately for the reasons shown above, we also feel that the same reasoning should be applied to *guttifer*, which both Fry (1988) and Sibley & Monroe (1990) place in *poliocephalus*. It is a bird of montane grasslands adjacent to areas of highland forest, it too has some vocal differences from the other two, and again has a different tail pattern with only a small amount of white on the outer tail feathers compared to the all-white outers in *poliocephalus* and the at least half-white outers of *ruwenzorii*. We recommend that field studies of all three species be undertaken to help determine their true affinities.

Merops nubicus Northern Carmine Bee-eater [Carmine Bee-eater]
Merops nubicoides Southern Carmine Bee-eater [*Merops nubicus nubicoides*]

Although considered conspecific by Fry (1988), we prefer to follow Clancey (1980) and Sibley & Monroe (1990) in treating *nubicoides* as specifically distinct.

Upupa epops Eurasian Hoopoe [*Upupa epops* Hoopoe]
Upupa africana African Hoopoe [*Upupa epops* Hoopoe]

We follow Sibley & Monroe (1990) in regarding the African form *africana* specifically distinct from the northern *epops*.

Phoeniculus damarensis Violet Wood Hoopoe [*Phoeniculus granti*]

We follow Snow (1978), Fry *et al.* (1988) and Sibley & Monroe (1990) in regarding *granti* as conspecific with *damarensis*. The taxon in eastern Africa now becomes *P. damarensis granti*.

Phoeniculus purpureus Green Wood Hoopoe
Phoeniculus somaliensis Black-billed Wood Hoopoe [*Phoeniculus purpureus somaliensis*]

We follow Snow (1978), Fry *et al.* (1988) and Sibley & Monroe (1990) in treating *somaliensis* as specifically distinct from *purpureus*.

Rhinopomastus cyanomelas Scimitarbill [*Phoeniculus cyanomelas*]

Rhinopomastus aterrimus Black Scimitarbill [*Phoeniculus cyanomelas*]

Rhinopomastus minor Abyssinian Scimitarbill [*Phoeniculus minor*]

Ligon & Ligon (1978), noting that scimitarbills were not communal birds as were the wood hoopoes, considered them in the genus *Rhinopomastus*, as did many earlier authors (Jackson 1938, Chapin 1939, Mackworth-Praed & Grant 1952). More recently, following DNA-DNA hybridization studies, Sibley & Monroe (1990) separated scimitarbills at the family level, proposing the new name Rhinopomastidae. While we agree that there are substantial differences between the two groups, we prefer, for the time being, to retain the genus *Rhinopomastus* within the Phoeniculidae. We also follow Fry *et al.* (1988) and Sibley & Monroe (1990) in recognizing *aterrimus* as a distinct species.

Bucorvidae ground hornbills [Bucoracinae in Bucorvidae]

We follow Sibley & Monroe (1990) in recognizing the two species of ground hornbill *Bucorvus* spp. as constituting a family.

Lybiidae African barbets

[Capitonidae barbets]

We follow Sibley & Monroe (1990) whose DNA studies have shown that African barbets are clearly distinct from both Asian and New World forms. We support this change and recognize the family Lybiidae.

Stactolaema leucotis* White-eared Barbet**[*Buccanodon leucotis*]Stactolaema whytii* Whyte's Barbet**[*Buccanodon whytii*]***Stactolaema olivacea* Green Barbet**[*Buccanodon olivacea*]

We follow Short & Horne (in Fry *et al.* 1988) and Sibley & Monroe (1990) in recognizing *Stactolaema*, and in removing the above three species from *Buccanodon*.

Tricholaema hirsuta* Hairy-breasted Barbet**[*Lybius hirsutus*]Tricholaema diademata* Red-fronted Barbet**[*Lybius diadematus*]***Tricholaema frontata* Miombo Pied Barbet**[*Lybius frontatus*]***Tricholaema lacrymosa* Spotted-flanked Barbet**[*Lybius lacrymosus*]***Tricholaema melanocephala* Black-throated Barbet**[*Lybius melanocephalus*]

We follow Short & Horne (1985, and in Fry *et al.* 1988) and Sibley & Monroe (1990) in recognizing *Tricholaema* and in removing the above five species from *Lybius*. We note that *lacrymosa*, and not *lachrymosa*, is the correct spelling.

[*Indicator narokensis* Kilimanjaro Honeyguide]

Short & Horne (1985, and in Fry *et al.* 1988) comment that this form (based on an immature bird taken at Ol Donyo Orok) is indistinguishable from the type of *I. meliphilus*, which was also an immature. Thus *narokensis* is a synonym of *I. meliphilus*. We accept this view and recommend that *narokensis* be deleted from the East African list.

Campethera abingoni* Golden-tailed Woodpecker**Campethera mombassica* Mombasa Woodpecker**[*Campethera abingoni mombassica*]

Clancey (1988) and Short (in Fry *et al.* 1988) are both of the opinion that the form *mombassica* should be considered specifically distinct from *abingoni*, although hybrids between *mombassica* and *C. abingoni suahelica* may occur in some areas. Both forms, however, do occur near Kilimanjaro with no trace of hybridization, and we therefore follow Short (*op. cit.*) and Sibley & Monroe (1990) in treating *mombassica* as a separate species.

Dendropicus namaquus[*Thripias namaquus*]***Dendropicus xantholophus* Yellow-crested Woodpecker**[*Thripias xantholophus*]***Dendropicos elliotii* Elliot's Woodpecker**[*Mesopicos elliotii*]***Dendropicos goertae* Grey Woodpecker**[*Mesopicos goertae*]***Dendropicos griseocephalus* Olive Woodpecker**[*Mesopicos griseocephalus*]

We follow Short (in Snow 1978, 1982, and in Fry *et al.* 1988). Those species previously placed in *Thripias* and *Mesopicos* are considered closely related to the *fuscescens* group, and are now included in *Dendropicos*. We also note that Sibley & Monroe (1990) do likewise.

References

- AMADON, D. & BULL, J. 1988. Hawks and owls of the world: a distributional and taxonomic list. *Proceedings of the Western Foundation of Vertebrate Zoology*. 3: 295–357.
- BECKING, J.H. 1988. The taxonomic status of the Madagascar Cuckoo *Cuculus (poliocephalus) rochii* and its occurrence on the African mainland, including southern Africa. *Bulletin of the British Ornithologists' Club* 108: 195–206.

- BRITTON, P.L. (ED.) 1980. *Birds of East Africa*. Nairobi: EANHS.
- BROOKE, R.K. 1974. *Buteo tachardus* Andrew Smith 1830. *Bulletin of the British Ornithologists' Club* 94: 59–62.
- BROOKE, R.K. & SINCLAIR, J.C. 1978. Preliminary list of southern African seabirds. *Cormorant* 4: 10–17.
- BROOKE, R.K. & VERNON, C.J. 1981. Early names and records of two small *Hieraaetus* eagles (Aves: Accipitridae) in the Cape Province of South Africa. *Annals of the Cape Province Museum (Natural History)* 13: 133–137.
- BROWN, L.H. & AMADON, D. 1968. *Eagles, hawks and falcons of the world*. 2 vols. Feltham: Hamlyn.
- BROWN, L.H., URBAN, E.K. & NEWMAN, K. 1982. *The birds of Africa*. Vol. 1. London & New York: Academic Press.
- CHAPIN, J.P. 1939. The birds of the Belgian Congo. Part II. *Bulletin of the American Museum of Natural History* 75: 1–632.
- CHAPPUIS, C. 1974, 1978, 1981. Illustration sonore de problèmes bioacoustiques posés par les oiseaux de la zone éthiopienne. *Alauda*, Suppl. Sonore 42 (4), 46 (4), 49 (1).
- CLANCEY, P.A. (ED.) 1980. *S.A.O.S. Checklist of southern African birds*. Pretoria: S.A.O.S.
- CLANCEY, P.A. 1988. Relationships in the *Campethera notata*, *C. abingoni* and *C. (a.) mombassica* complex of the Afrotropics. *Bulletin of the British Ornithologists' Club* 108: 169–172.
- COLLAR, N.J. & STUART, S.N. 1985. *Threatened birds of Africa and related islands*. Cambridge: ICBP and IUCN.
- CONDON, H.T. 1975. *Checklist of the birds of Australia. Part I. Non-Passerines*. Melbourne: RAOU.
- CONNORS, P.G. 1983. Taxonomy, distribution and evolution of Golden Plovers (*Pluvialis dominica* and *Pluvialis fulva*). *Auk* 100: 607–620.
- CROWE, T.M. 1978. The evolution of guinea-fowl (Galliformes, Phasianidae, Numidinae): taxonomy, phylogeny, speciation and biogeography. *Annals of the South African Museum* 76: 43–136.
- DEVILLERS, P. 1976. Projet de nomenclature française des oiseaux du monde. *Le Gerfaut* 66: 391–421.
- DOWSETT, R.J. & DOWSETT-LEMAIRE, F. 1980. The systematic status of some Zambian birds. *Le Gerfaut* 70: 151–199.
- DOWSETT, R.J. & FORBES-WATSON, A. in press. *Checklist of the birds of the Afrotropical and Malagasy regions*. Ely: Tauraco Press.
- DOWSETT-LEMAIRE, F. & DOWSETT, R.J. 1988. Vocalizations of the green turacos (*Tauraco* species) and their systematic status. *Tauraco* 1: 64–71.
- FRY, C.H. 1984. *The bee-eaters*. Calton: T. & A.D. Poyser.
- FRY, C.H. 1988. Skulls, songs and systematics of African nightjars. *Proceedings of the VI Pan-African Ornithological Congress* 105–131.
- FRY, C.H., KEITH, S. & URBAN, E.K. 1988. *The birds of Africa*. Vol. 3. London and New York: Academic Press.
- GOODWIN, D. 1967. *Pigeons and doves of the world*. London: British Museum.
- HARRISON, P. 1983. *Seabirds: an identification guide*. Beckenham: Croom Helm.

- HAYMAN, P., MARCHANT, J. & PRATER, T. 1986. *Shorebirds: an identification guide*. Beckenham: Croom Helm.
- JACKSON, F.J. 1938. *The birds of Kenya Colony and the Uganda Protectorate*. London: Gurney & Jackson.
- JAMES, A.H. & WATTEL, J. 1983. The nomenclature of *Buteo oreophilus*. *Bulletin of the British Ornithologists' Club* 103: 128–133.
- LIGON, J.D. & LIGON, S.H. 1978. The communal social system of the Green Woodhoopoe in Kenya. *Living Bird* 17: 159–197.
- MACKWORTH-PRAED, C.W. & GRANT, C.H.B. 1952. *African handbook of birds. Series I, volume I. Birds of eastern and north eastern Africa*. London: Longmans.
- MARSHALL, J.T. 1978. *Systematics of smaller Asian night birds based on voice*. A.O.U. Ornithological Monographs 25: 1–58.
- OLSON, S.L. 1973. A classification of the Rallidae. *Wilson Bulletin* 85: 381–416.
- SHORT, L.L. 1982. *Woodpeckers of the world*. Greenville (DE): Delaware Museum of Natural History.
- SHORT, L.L. & HORNE, J.F.M. 1985. Behavioral notes on the nest-parasitic Afrotropical honeyguides (Aves: Indicatoridae). *American Museum Novitates* 2825: 1–46.
- SIBLEY, C.G. & MONROE, B.L. JR. 1990. *Distribution and taxonomy of birds of the world*. New Haven and London: Yale University Press.
- SMEENK, C. & SMEENK-ENSERINK, N. 1975. Observations of the Pale Chanting Goshawk *Melierax poliopterus*, with comparative notes on the Gabar Goshawk *Micronisus gabar*. *Ardea* 63: 93–115.
- SNOW, D.W. (ED.) 1978. *An atlas of speciation in African non-passerine birds*. London: British Museum.
- TAYLOR, P.B. & TAYLOR, C.A. 1988. The status, movements and breeding of some birds in the Kikuyu escarpment forest, central Kenya highlands. *Tauraco* 1: 72–89.
- URBAN, E.K. Status of cranes in Africa. *Proceedings of the VI Pan-African Ornithological Congress* 315–329.
- URBAN, E.K., FRY, C.H. & KEITH, S. 1986. *The birds of Africa*. Vol. 2. London: Academic Press.
- VOOUS, K.H. 1964. Wood Owls of the genera *Strix* and *Ciccaba*. *Zoologische Mededelingen* 39: 471–478.
- VOOUS, K.H. 1973, 1977. List of recent Holarctic bird species. *Ibis* 115: 612–238, and 119: 223–250.
- WALKINSHAW, L.H. 1973. *Cranes of the world*. New York: Winchester Press.
- WHITE, C.M.N. 1965. *A revised check list of African non-passerine birds*. Lusaka: Government Printer.
- WHITE, G.B. 1974. Rarest eagle owl in trouble. *Oryx* 12: 484–486.

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